IN THE SPECIFICATION

Please amend the paragraphs beginning at page 5, line 27, ending at page 17, line 6, as follows:

According to one embodiment of the present invention, an ~~1) An~~ evaporator has ~~comprising~~ a refrigerant inlet header and a refrigerant outlet header arranged side by side in a front-rear direction, and a refrigerant circulating passage for holding the two headers in communication with each other therethrough, the inlet header having a refrigerant inlet at one end thereof, the outlet header having a refrigerant outlet at one end thereof alongside the inlet end, a refrigerant being permitted to flow from the refrigerant inlet into the inlet header and to return to the outlet header through the circulating passage so as to be sent out from the refrigerant outlet, the inlet header and the outlet header being closed with respective caps each at said one end thereof, the refrigerant inlet being formed in the cap of the inlet header, the refrigerant outlet being formed in the cap of the outlet header, a platelike pipe joint member having a refrigerant inlet portion in communication with the refrigerant inlet and a refrigerant outlet portion in communication with the refrigerant outlet and being joined to both the caps of the inlet header and the outlet header.

According to another embodiment of the present invention, ~~2) An evaporator described in par. 1) wherein~~ the refrigerant inlet portion and the refrigerant outlet portion of the pipe joint member are each in the form of a short tube, a refrigerant inlet pipe having a constricted end portion inserted in and joined to the refrigerant inlet portion, a refrigerant outlet pipe having an end portion inserted in and joined to the refrigerant outlet portion.

According to another embodiment of the present invention, ~~3) An evaporator described in par. 2) wherein~~ the refrigerant inlet portion is smaller than the refrigerant outlet portion in outside diameter.

According to another embodiment of the present invention, ~~4) An evaporator described in par. 2) wherein~~ the refrigerant outlet pipe is provided at said end portion with a constricted portion inserted in and joined to the refrigerant outlet portion.

According to another embodiment of the present invention, ~~5) An evaporator described in par. 1) wherein~~ one of the cap and the pipe joint member is provided with a positioning lug projecting toward the other, and the other is provided with a positioning recess for the lug to fit in.

According to another embodiment of the present invention, ~~6) An evaporator described in par. 1) wherein~~ the caps are in the form of an integral piece.

According to another embodiment of the present invention, ~~7) An evaporator described in par. 1) wherein~~ the inlet header and the outlet header ~~comprise~~ have a first member forming portions of the two headers adjacent to the circulating passage and a second member forming the remaining portions of the two headers and brazed to the first member, whereby the two headers are made integral with each other, each of the caps having engaging lugs engageable with the first member and the second member respectively.

According to another embodiment of the present invention, an ~~8) An~~ evaporator ~~comprising~~ has a heat exchange core composed of tube groups in the form of ~~a plurality of~~ rows arranged in a front-rear direction, each of the tube groups ~~comprising a plurality of~~ having heat exchange tubes arranged at a spacing in a left-right direction, a refrigerant inlet header positioned toward one end of each heat exchange tube and having joined thereto the heat exchange tubes of the tube group of at least one row, a refrigerant outlet header disposed toward said one end of each heat exchange tube and positioned forwardly or rearwardly of the inlet header, the outlet header having joined thereto the heat exchange tubes of the tube group of at least one row, a refrigerant inflow header positioned toward the other end of each heat exchange tube and having joined thereto the heat exchange tubes joined to the inlet

header, and a refrigerant outflow header positioned toward said other end of each heat exchange tube and having joined thereto the heat exchange tubes joined to the outlet header, the inflow header and the outflow header being in communication with each other to provide a refrigerant turn portion, the inlet header and the outlet header being closed with respective caps each at one end thereof, the cap of the inlet header having a refrigerant inlet, the cap of the outlet header having a refrigerant outlet, a platelike pipe joint member having a refrigerant inlet portion in communication with the refrigerant inlet and a refrigerant outlet portion in communication with the refrigerant outlet and being joined to both the caps of the inlet header and the outlet header.

According to another embodiment of the present invention, ~~9) An evaporator described in par. 8) wherein~~ the refrigerant inlet portion and the refrigerant outlet portion of the pipe joint member are each in the form of a short tube, a refrigerant inlet pipe having a constricted end portion inserted in and joined to the refrigerant inlet portion, a refrigerant outlet pipe having an end portion inserted in and joined to the refrigerant outlet portion.

According to another embodiment of the present invention, ~~10) An evaporator described in par. 9) wherein~~ the refrigerant inlet portion is smaller than the refrigerant outlet portion in outside diameter.

According to another embodiment of the present invention, ~~11) An evaporator described in par. 9) wherein~~ the refrigerant outlet pipe is provided at said end portion with a constricted portion inserted in and joined to the refrigerant outlet portion.

According to another embodiment of the present invention, ~~12) An evaporator described in par. 8) wherein~~ one of the cap and the pipe joint member is provided with a positioning lug projecting toward the other, and the other is provided with a positioning recess for the lug to fit in.

According to another embodiment of the present invention, ~~13) An evaporator described in par. 8) wherein~~ the pipe joint member is provided with a positioning lug projecting toward the cap, and the cap is provided with a positioning recess for the lug to fit in, the inlet header and the outlet header being closed with respective blind caps each at the other end thereof, the blind caps not having the positioning recess formed in the cap.

According to another embodiment of the present invention, ~~14) An evaporator described in par. 13) wherein~~ the inlet header and the outlet header comprise a first member having the heat exchange tubes joined thereto, and a second member joined to the first member at a portion thereof opposite to the heat exchange tubes, whereby the inlet and outlet headers are made integral with each other, each of the caps and the blind caps having engaging lugs engageable with the first member and the second member respectively.

According to another embodiment of the present invention, ~~15) An evaporator described in par. 14) wherein~~ the inlet header and the outlet header are provided by dividing interior of a single refrigerant inlet-outlet tank into a front and a rear portion by a partitioning [[means]] device.

According to another embodiment of the present invention, ~~16) An evaporator described in par. 15) wherein~~ interior of the outlet header is divided by a separating [[means]] device into first and second two spaces arranged in the direction of height, and the heat exchange tubes joined to the outlet header extend into the first space, the second space of the outlet header being in communication with the refrigerant outlet.

According to another embodiment of the present invention, ~~17) An evaporator described in par. 16) wherein~~ the partitioning [[means]] device and the separating [[means]] device are integral with the second member.

According to another embodiment of the present invention, ~~18) An evaporator described in par. 16) wherein~~ the caps, as well as the blind caps, are made integral with each

other, and the caps, as well as the blind caps, have a first protrusion fitting in the inlet header, a second protrusion fitting in the first space of the outlet header and a third protrusion fitting in the second space of the outlet header, the first protrusion of the caps being provided with the refrigerant inlet, the third protrusion of the caps being provided with the refrigerant outlet.

According to another embodiment of the present invention, a ~~19) A~~ process for fabricating an evaporator ~~described in par. 2), the process being characterized by~~ includes forming a refrigerant inlet header and a refrigerant outlet header arranged side by side in a front-rear direction, and a refrigerant circulating passage for holding the two headers in communication with each other therethrough, joining a cap having a refrigerant inlet to one end of the inlet header and a cap having a refrigerant outlet to one end of the outlet header, joining a platelike pipe joint member having a refrigerant inlet portion in the form of a short tube and to be in communication with the inlet and a refrigerant outlet portion in the form of a short tube and to be in communication with the outlet to both the caps of the inlet header and the outlet header, thereafter inserting a constricted end portion of a refrigerant inlet pipe into the inlet portion of the pipe joint member and an end portion of a refrigerant outlet pipe into the outlet portion of the pipe joint member, and brazing the inlet portion and the outlet portion of the pipe joint member to the inlet pipe and the outlet pipe respectively at the same time using a high-frequency heating coil in the form of a spectacle-shaped assembly of two annular portions, with one of the annular portions positioned around the inlet portion of the pipe joint member and the other annular portion positioned around the outlet portion thereof.

According to another embodiment of the present invention, ~~20) A process for fabricating an evaporator described in par. 9),~~ the process ~~being characterized by~~ further includes making a heat exchange core composed of tube groups in the form of ~~a plurality of~~ rows arranged in a front-rear direction, each of the tube groups ~~comprising a plurality of~~ having heat exchange tubes arranged at a spacing in a left-right direction, a refrigerant inlet

header positioned toward one end of each heat exchange tube and having joined thereto the heat exchange tubes of the tube group of at least one row, a refrigerant outlet header disposed toward said one end of each heat exchange tube and positioned forwardly or rearwardly of the inlet header, the outlet header having joined thereto the heat exchange tubes of the tube group of at least one row, a refrigerant inflow header positioned toward the other end of each heat exchange tube and having joined thereto the heat exchange tubes joined to the inlet header, and a refrigerant outflow header positioned toward said other end of each heat exchange tube and having joined thereto the heat exchange tubes joined to the outlet header by collectively brazing the components, conducting a brazing operation simultaneously with the collective brazing step to braze a cap having a refrigerant inlet to one end of the inlet header and a cap having a refrigerant outlet to one end of the outlet header, to braze blind caps respectively to the other ends of the inlet header and the outlet header, and to braze a pipe joint member having a refrigerant inlet portion in the form of a short tube and to be in communication with the inlet and a refrigerant outlet portion in the form of a short tube and to be in communication with the outlet to both the caps of the inlet header and the outlet header, thereafter inserting a constricted end portion of a refrigerant inlet pipe into the inlet portion of the pipe joint member and an end portion of a refrigerant outlet pipe into the outlet portion of the pipe joint member, and brazing the inlet portion and the outlet portion of the pipe joint member to the inlet pipe and the outlet pipe respectively at the same time using a high-frequency heating coil in the form of a spectacle-shaped assembly of two annular portions, with one of the annular portions positioned around the inlet portion of the pipe joint member and the other annular portion positioned around the outlet portion thereof.

According to another embodiment of the present invention, a ~~21) A~~ refrigeration cycle ~~comprising~~ includes a compressor, a condenser and ~~an evaporator, the evaporator comprising an evaporator described in any one of par. 1) to 18)~~ one of the evaporators described above.

According to another embodiment of the present invention, a ~~22) A~~ vehicle having installed therein [[a]] the refrigeration cycle ~~described in par. 21)~~ as a motor vehicle air conditioner.

With the evaporators ~~described in par. 1) and 8)~~, the inlet header and the outlet header are closed with respective caps each at one end thereof, the cap of the inlet header has a refrigerant inlet, the cap of the outlet header has a refrigerant outlet, and the platelike pipe joint member has a refrigerant inlet portion communicating with the inlet and a refrigerant outlet portion communicating with the outlet and is positioned transversely of and joined to both the inlet header and the outlet header. Accordingly, the pipe joint member has a relatively small thermal capacity, and can be brazed to the inlet header and the outlet header more effectively to ensure facilitated work in fabricating the entire evaporator.

With the evaporators ~~described in par. 2) and 9)~~, the refrigerant inlet portion and the refrigerant outlet portion of the pipe joint member are each in the form of a short tube, and the constricted end portion of the inlet pipe is inserted in and joined to the inlet portion. The inlet portion can therefore be given a reduced outside diameter, consequently providing a relatively great spacing between the inlet portion and the outlet portion. The end portion of the inlet pipe which usually has a small diameter in evaporators is further constricted, and the constricted end portion is inserted into the inlet portion, so that the inlet portion can be considerably diminished in outside diameter. This provides a relatively great spacing between the inlet portion and the outlet portion. Accordingly, even in the case where the pipe joint member is restricted in front-rear dimension, a high-frequency heating coil can be easily provided around the inlet portion and the outlet portion to ensure an automatic brazing operation and facilitated work in fabricating the entire evaporator. A relatively large spacing provided between the inlet portion and the outlet portion permits the pipe joint portion between the inlet and outlet portions to be joined to the inlet header and to the outlet header

over increased areas to prevent the occurrence of a faulty joint, further precluding short-circuiting between the inlet header and the outlet header. This eliminates the likelihood that the refrigerant flowing into the inlet header via the inlet pipe will flow out of the outlet header into the outlet pipe without passing through the refrigerant circulating passage ~~[in the case of the evaporator described in par. 2)]~~ or through the heat exchange tubes ~~[in the case of the evaporator described in par. 9)]~~, preventing the impairment of cooling performance of the evaporator. With the end portion of the inlet pipe constricted, the refrigerant flows from the inlet pipe into the inlet header at an increased velocity so as to spread to the other end of the inlet pipe. In the case of the evaporator ~~according to par. 2)~~, the refrigerant is caused to flow as uniformly divided through all refrigerant circulating channels and is therefore allowed to flow through the channels in uniformalized quantities for the evaporator to exhibit improved cooling performance. If the refrigerant flows at a low velocity, the refrigerant flows into circulating channels at a position close to the refrigerant inlet in a greater amount than when flowing into circulating channels at a position away from the inlet, with the result that the refrigerant flows through all the circulating channels in uneven quantities to lower the cooling performance of the evaporator. This phenomenon becomes pronounced when the flow rate of the refrigerant is small. With the evaporator ~~according to par. 9)~~, the refrigerant flows as uniformly dividedly into all the heat exchange tubes joined to the inlet header, enabling the evaporator to achieve an improved cooling efficiency. At a low flow rate, the refrigerant flows into heat exchange tubes positioned close to the inlet in a larger quantity than when flowing into heat exchange tubes positioned away from the inlet, consequently flowing through all tubes in uneven quantities. This becomes pronounced when the flow rate of the refrigerant is low.

With evaporators ~~described in par. 3) and 10)~~, a further increased spacing can be provided between the inlet portion and the outlet portion of the pipe joint member.

In the case of the evaporators ~~described in par. 4) and 11)~~, the outlet portion can be given a reduced outside diameter, providing a further increased spacing between the inlet portion and outlet portion of the pipe joint member.

When fabricating the evaporators ~~described in par. 5) and 12)~~, the cap and the pipe joint member can be positioned in place accurately.

With the evaporator ~~described in par. 6)~~, the caps can be handled with ease.

When the components are tacked in combination in fabricating the evaporator ~~according to par. 7)~~, the first member and the second member can be tacked utilizing the engaging lugs on the caps. This results in an improved work efficiency.

When the components are tacked in combination in fabricating the evaporator ~~according to par. 13)~~, the blind caps can be prevented from being arranged at the end location of the inlet header and the outlet header where the pipe joint member is to be joined. If the blind caps are arranged at the location where the pipe joint member is to be joined, the positioning lugs of the pipe joint member will interfere with the blind caps and can not be positioned in place. This prevents the blind caps from being arranged at the wrong location.

When the components are tacked in combination in fabricating the evaporator ~~according to par. 14)~~, the first member and the second member can be tacked utilizing the engaging lugs on the caps and the blind caps. This results in an improved work efficiency.

The evaporator ~~described in par. 15)~~ can be reduced in the number of components needed for fabricating the evaporator in its entirety.

With the evaporator ~~described in par. 16)~~, the separating [[means]] <u>device</u> functions to enable the refrigerant to flow through all the heat exchange tubes joined to the inlet header in further uniformalized quantities and to flow also through all the heat exchange tubes joined to the outlet header in uniformalized quantities for the evaporator to exhibit further improved cooling performance.

With the evaporator ~~described in par. 17)~~, the partitioning [[means]] device and the separating [[means]] device of the inlet-outlet tank are integral with the second member and can therefore be provided easily.

In the processes ~~described in par. 19) and 20)~~ for fabricating evaporators, the inlet pipe and the outlet pipe can be brazed to the inlet portion and the outlet portion of the pipe joint member at the same time. The evaporators ~~described in par. 2) and 9)~~ can therefore be fabricated relatively easily.

Please delete the current abstract at page 50 in its entirety and substitute therefor a new abstract as shown on the attached sheets: